

**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION**

VEX ROBOTICS, INC.,

Plaintiff,

v.

CROSS THE ROAD ELECTRONICS, LLC

Defendant.

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Civil Action No. 3:23-cv-02586-D

**DEFENDANT CROSS THE ROAD ELECTRONICS, LLC'S
FIRST AMENDED COUNTERCLAIMS**

TO THE HONORABLE JUDGE OF SAID COURT:

CROSS THE ROAD ELECTRONICS, LLC, Defendant in the above-entitled and numbered cause, files this their First Amended Counterclaims against Plaintiff, Vex Robotics, Inc., and in support thereof would respectfully show:

CROSS THE ROAD ELECTRONICS, LLC'S FIRST AMENDED COUNTERCLAIMS

**I.
PARTIES**

1. Counter-Plaintiff Cross the Road Electronics, LLC ("CTRE" or "Counter-Plaintiff") is a Michigan limited liability company with its principal place of business at 16065 Leone Drive, Macomb Township, Macomb County, Michigan 48042. CTRE has already appeared in this lawsuit.

2. Upon information and belief, Counter-Defendant Vex Robotics, Inc. ("Vex" or "Counter-Defendant") is a Texas corporation with its principal place of business at 6725 W. FM 1570, Greenville, Hunt County, Texas 75402. Vex has already appeared in this lawsuit.

II.

JURISDICTION AND VENUE

3. This Court has original subject matter jurisdiction under 28 U.S.C. §§ 1331, 1332, 1338(a) and (b), and supplemental subject matter jurisdiction under 28 U.S.C. § 1367.

4. Plaintiff/Counter-Defendant Vex has appeared and availed itself of the Court's jurisdiction by commencing this action in this district.

5. Defendant/Counter-Plaintiff CTRE has appeared by filing its answer and special exceptions to Plaintiff's Amended Petition and counterclaim in this action.

6. Venue is proper in this district as CTRE's counterclaim arises under 28 U.S.C. § 2201 *et seq.* and 17 U.S.C. §§ 101 *et seq.* from the same subject matter and transactions in this proceeding.

III.

FACTS

Introduction to CTRE

7. CTRE is a provider of embedded software solutions applicable to various control systems, including, robotics, Diver Propulsion Vehicles (DPVs), and motor controls. CTRE has a reputation as the market leader for advanced control system and performance motor control products used for FIRST Robotics Competition ("FRC" or "FIRST") – an international high school robotics competition.

8. CTRE is a member of FIRST's "Control System Committee" and has previously developed core "control system" hardware components (such as the PCM, VRM, and PDP) which were integrated by FIRST into the set of components teams must use in the FRC when building and programming their robots (the "FRC Control System"). CTRE also developed software tools for use by FRC teams while ensuring all their software and hardware products integrated

successfully with those specified by FIRST (the “FRC Software Ecosystem”).

CTRE’S In-House Development of Brushless Motor Controllers

9. Since early in the company’s founding, CTRE has worked to create and bring to market an integrated brushless motor and brushless motor controller for the FRC.

10. Brushless motors are preferred to brushed motors in the motor control community, because they have significantly higher efficiency and performance and a lower susceptibility to mechanical wear.

11. In early 2013, CTRE began in-house development of a stand-alone brushless motor controller compatible with off-the-shelf brushless motors for use in undersea scooters. Later that year, CTRE successfully ran a prototype for a brushless motor controller, the VORTEX. The VORTEX controller began being shipped to customers in 2014.

12. Thereafter, CTRE adapted the VORTEX to create a brushless motor controller prototype designed for specific use by the FRC. This controller prototype was named the CYCLONE.

13. The software code in the VORTEX and CYCLONE would later be adapted to create the Talon FX brushless motor controller – the first high powered brushless motor controller which could be integrated with a brushless motor as a single unit and used at the FRC.

The April 2014 Agreement between CTRE and Vex

14. In April 2014, CTRE signed an agreement with Vex Robotics, Inc. a subsidiary of Innovation First International, Inc (IFI). The 2014 Agreement allowed Vex to resell CTRE’s products used in the FRC Control System and provided that the parties would jointly develop two (2) new electronic speed controller(s) specifically designed for the FRC (the “2014 Agreement”). See Exh. A.

15. The two (2) electronic speed controllers designed and developed under the 2014 Agreement were the Victor SP (later updated to the Victor SPX) and the Talon SRX (the “Developed Controllers”).

16. The Victor SPX and Talon SRX are brushed motor controllers.

17. CTRE exclusively created the electrical design files and wrote the entire software code for the Developed Controllers.

18. Vex provided design review feedback and sourced and provided feedback on the selection of components but did not contribute to the development and creation of the electrical design files or software code used in the Developed Controllers. CTRE has not assigned its intellectual property rights in the Developed Controllers to Vex. As a result, CTRE is the sole owner of the intellectual property comprising the electrical design files and software in the Developed Controllers.

Vex’s Delinquent Royalty Payments Owed to CTRE Under the 2014 Agreement

19. Under Section 3.8 of the 2014 Agreement, Vex and CTRE agreed to “equally share all Product Profit and manufacturing costs” according to certain terms (the “Payment Terms”). *See* Exh. A. In relevant part, the parties agreed that “Vex and CTRE will each receive 50% of the Product Profit for each developed controller sold during the term. The selling party will provide payment to the other party within 15 days after the close of each month.” The monthly payment Vex owed to CTRE as the selling party is hereinafter referred to as the “Royalty Payment”.

20. Up to and after the expiry of the 2014 Agreement, Vex continued to make Royalty Payment to CTRE for its ongoing sales of the Developed Controllers. Since the first quarter of 2022, Vex was routinely late in making the Royalty Payment to CTRE.

21. In or around June 2023, Vex ceased making the Royalty Payment owed to CTRE

under the 2014 Agreement while continuing to manufacture and sell the Victor SPX and Talon SRX products in the United States and abroad.

22. Upon information and belief, Vex continues to advertise and sell the Victor SPX and the Talon SRX products in the United States and abroad and continues to refuse to make Royalty Payment to CTRE for the manufacture and sale of these products.

The Development and Creation of the Falcon 500 Brushless Motor

23. On or about May 2016, CTRE and Vex began discussions to build a brushless motor design which would be compatible with a brushless motor controller.

24. Vex robotics was responsible for sourcing the components and provided input on component selection based on their availability from Vex's preferred suppliers.

25. During sourcing, Vex utilized CTRE as subject matter experts on brushless motors since CTRE had expertise in brushless designs and had already successfully brought a brushless motor controller to market.

26. The parties did not execute a written agreement with respect to the design, development, manufacturing, and sale of the brushless motor design.

27. Ultimately, an integrated brushless motor and brushless motor controller solution was created and named the Falcon 500.

28. The software associated with the Falcon 500 includes (i) the firmware embedded in the integrated brushless motor controller (hereinafter, "Talon FX") (ii) the applications customers use to update the Falcon 500's internal processor or adjust the settings of the motor and (iii) the larger software ecosystem which allows users to program their robots which must successfully "talk to" the Falcon 500 (collectively the "Software").

29. CTRE solely and exclusively wrote every line of code comprising the Software and

is the sole author and owner of the intellectual property rights therein. Moreover, CTRE solely and exclusively created the electrical design files for the Falcon 500 and Talon FX.

30. CTRE selected the electrical components, created the electrical schematic design and printed circuit board (PCB) layout for the Talon FX and Falcon 500, and designed all performance and functional test fixtures (e.g., mechanical mounting and selection of test equipment, and selecting the development board to drive the tests), and developed and wrote all the test-fixture software.

31. Vex manufactured the Falcon 500. The Falcon 500 was brought to market in late 2019 and made available for use in the 2020 FRC season. The parties did not execute a written agreement with respect to the design, development, manufacturing, and sale of the Falcon 500.

32. In mid-July 2023, following a series of customer complaints relating to mechanical quality issues with the Falcon 500, CTRE sent an email and certified letter to Vex stating, in relevant part, "CTR Electronics is not willing to continue to license our IP for any additional production runs of the Falcon 500. In addition, we are not interested in licensing our IP to Innovation First International, Inc (IFI) or any of its subsidiaries for future products at this time. After reviewing our past relationship, it is our conclusion that IFI has not lived up to their commitments regarding on-time delivery, supply-chain management, product quality, on-time payment and responsiveness. This has resulted in negative experiences for CTR Electronics customers, a decrease in customer satisfaction, and a negative impact to the CTR Electronics reputation within our marketplace."

33. Vex responded by filing the present lawsuit.

Vex's Delinquent Royalty Payments Owed to CTRE for the Falcon 500

34. As stated above, the parties did not execute a written agreement with respect to the

design, development, manufacturing, and sale of the Falcon 500. However, the parties operated on agreed terms that they would share 50% of the product profit for each Falcon 500 sold (the “Falcon Royalty Payment”). Since the first quarter of 2023, Vex ceased and has not made Falcon Royalty Payments to CTRE for Falcon 500 products sold by Vex.

IV.

DEFENDANT/COUNTER PLAINTIFF’S COUNTERCLAIMS

Count One – Declaratory Judgment Regarding Authorship and Ownership of the Software (Copyright Act 17 U.S.C. § 201 *et seq.*)

35. CTRE incorporates and reasserts the allegations above.

36. Counter-Defendant has filed a lawsuit against CTRE claiming that “the combination of intellectual property incorporated into the Falcon 500 and, in particular, the resulting Falcon 500 design, is jointly owned by VEX and CTRE.” Am. Pet., ¶ 23.

37. No written agreement exists between CTRE and Vex which would control or assign the ownership of CTRE’s copyrights in the Software to Vex or any other intellectual property rights of CTRE in the Falcon 500. CTRE is the sole author and owner of the Software, the copyrights under 17 U.S.C § 201(a), and any intellectual property developed by CTRE applicable to the Falcon 500.

38. Therefore, an actual, present and justiciable controversy between CTRE and Counter-Defendant has arisen concerning the Software’s authorship and ownership under the U.S. Copyright Act.

39. As a result, CTRE seeks:

- a. a declaratory judgment that CTRE is the author of the Software under 17 U.S.C. § 201(a);
- b. a declaratory judgment that all copyrights in the Software vested in CTRE under

17 U.S.C. § 201(a);

- c. a declaratory judgment that the Software is not a “joint work” between CTRE and VEX as defined in 17 U.S.C. § 101.
- d. a declaratory judgment that Vex is not an author of the Software under 17 U.S.C. § 201(a);
- e. a declaratory judgment that CTRE’s copyrights in the Software was not transferred to VEX in accordance with the standards of transfer set forth in 17 U.S.C. § 201(d) or 17 U.S.C. § 204(a);
- f. a declaratory judgment confirming that CTRE owns the copyrights and all attendant intellectual property rights in the Software.
- g. a declaratory judgment that CTRE has the right to prevent Vex from manufacturing and selling any products which incorporate the Software and any other intellectual property exclusively owned by CTRE;
- h. a declaratory judgment that CTRE has not, and is not, in breach of any purported contract, express or implied, as claimed by Vex; and
- i. a declaratory judgment that CTRE is not obligated to pay any of the production costs associated with Vex’s unauthorized and unlawful production of Falcon 500 products as of the filing date of Plaintiff’s Original Petition.

Count Two – Breach of Contract/Course of Dealing (Talon SRX & Victor SPX)

40. CTRE incorporates by reference the allegations contained in the preceding paragraphs.

41. CTRE has fully and properly performed all conditions precedent, conditions, covenants and acts required to be performed by CTRE in accordance with the terms and conditions

of the 2014 Agreement.

42. VEX breached the 2014 Agreement and course of dealing by failing to make Royalty Payments to CTRE with respect to the Developed Controllers, since at least as early as January 2023.

43. VEX's breach and unlawful conduct is continuous and ongoing as VEX has failed, and continues to fail, to make Royalty Payments to CTRE.

44. CTRE has sustained, and continues to incur, damages because of VEX's breach and unlawful conduct. CTRE has been damaged and is entitled to injunctive relief and attorney's fees pursuant to Tex. Civ. Prac. & Rem. Code § 38.001 et seq., and seeks all actual, special, compensatory, economic, consequential, quantum meruit, unjust enrichment and other damages, to be proven at trial.

Count Three – Breach of Implied Contract/Course of Dealing (Falcon 500)

45. CTRE incorporates by reference the allegations contained in the preceding paragraphs.

46. CTRE has fully and properly performed all conditions precedent, conditions, covenants and acts required to be performed by CTRE in accordance with the implied Falcon Royalty Payment contract terms and course of dealing relating to the Falcon 500.

47. VEX breached the implied contract terms and course of dealing with CTRE by failing to make Falcon Royalty Payments to CTRE with respect to the Falcon 500, since January 2023.

48. CTRE has sustained, and continues to incur, damages because of VEX's breach and unlawful conduct. CTRE has been damaged and is entitled to injunctive relief and attorney's fees pursuant to Tex. Civ. Prac. & Rem. Code § 38.001 et seq., and seeks all actual, special,

compensatory, economic, consequential, quantum meruit, unjust enrichment and other damages, to be proven at trial.

V.
PRAYER

WHEREFORE, PREMISES CONSIDERED, Counter-Plaintiff CROSS THE ROAD ELECTRONICS, LLC prays for judgment against Counter-Defendant for damages and relief as follows:

a. That Plaintiff/Counter-Defendant takes nothing by way of its claims and causes of action asserted against CTRE in this action;

b. For a declaratory judgment ordering that (i) CTRE is the author and sole owner of the Software under 17 U.S.C. § 201(a) and all intellectual property rights in the Software; (ii) the Software vested in CTRE under 17 U.S.C. § 201(a); (iii) the Software is not a “joint work” between CTRE and Vex as defined in 17 U.S.C. § 101; (iv) VEX is not an author of the Software under 17 U.S.C. § 201(a) and has no ownership interest in the intellectual property related to the Falcon 500; (v) ownership of the copyright in the Software was not transferred to Vex in accordance with the standards of transfer set forth in 17 U.S.C. § 201(d) or 17 U.S.C. § 204(a); and, (vi) that CTRE has not, and is not, in breach of any purported contract, express or implied, as claimed by Vex and is not obligated to pay any of the production costs associated with Vex’s unauthorized and unlawful production of Falcon 500 products as of the filing date of Plaintiff’s Original Petition.

c. For a preliminary and permanent injunction enjoining and restraining Counter-Defendant, its subsidiaries, divisions, branches, affiliates, predecessors or successors in business, parents and wholly owned or partially owned entities of the

Counter-Defendant, and any entities purporting to act for or on behalf of the foregoing, including any agents, employees, representatives, officers, directors, servants, partners, and those persons in active concert or participation with them, from using, marketing, manufacturing or selling products containing CTRE's Software and intellectual property in the Falcon 500.

d. For all actual, special, compensatory, economic, consequential, quantum meruit, unjust enrichment and other damages suffered by CTRE as a result of VEX's breach and unlawful conduct related to the failure to make Royalty Payments to CTRE concerning the Talon SRX, Victor SPX and Falcon Royalty Payments related to the Falcon 500 products.

e. As a result of VEX's breach and unlawful conduct, CTRE has been required to retain the undersigned counsel to institute and prosecute this action. Accordingly, CTRE pleads and requests that, as provided for by Tex. Civ. Prac. & Rem. Code 38.0001 *et seq.*, upon the granting of a favorable judgment in this cause, they be awarded all reasonable and necessary attorneys' fees, expenses and costs CTRE has incurred and will continue to incur in defending itself and prosecuting its claims in this action;

f. For pre-judgment and post-judgment interest as provided by law; and,

g. For all further relief to which CTRE may be justly entitled.

Dated: May 31, 2024

Respectfully submitted,

HARPER & BATES LLP

/s/ Scott L. Harper

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**COUNSEL FOR CROSS THE ROAD
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CERTIFICATE OF SERVICE

The undersigned certifies that all counsel of record who have consented to electronic service were served with a copy of this document through this Court's CM/ECF system and pursuant to the local rules on May 31, 2024.

/s/ Scott L. Harper

Scott L. Harper